

Model 73ER Overhead Concealed Closer

With Emergency Release Hinge
Non-Hold Open and Hold Open
Metal Frame Installation Instructions

RIXSON[®]

ASSA ABLOY



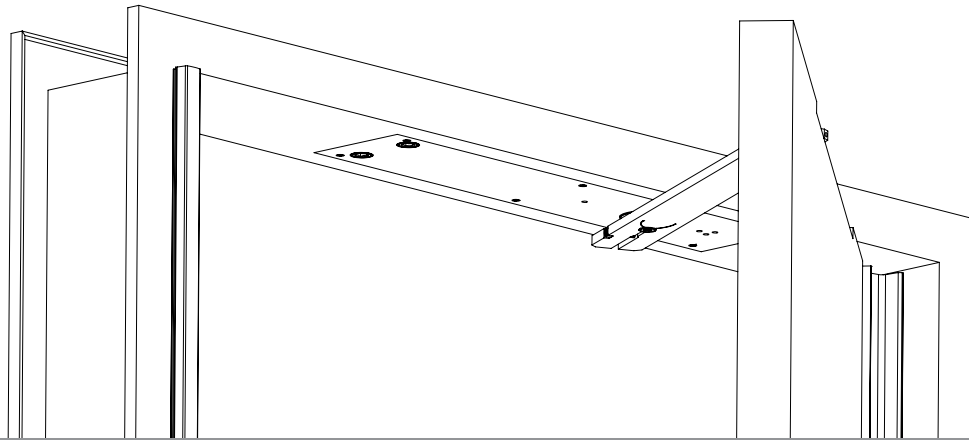
WARNING

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov.

These instructions utilize Markar and Pemko Anti-Barricade Rescue Hardware, supplied separately, to illustrate an emergency release hinge installation. For other manufacturers' hinge and/or stop products, please consult Rixson Support for templating and installation modifications.

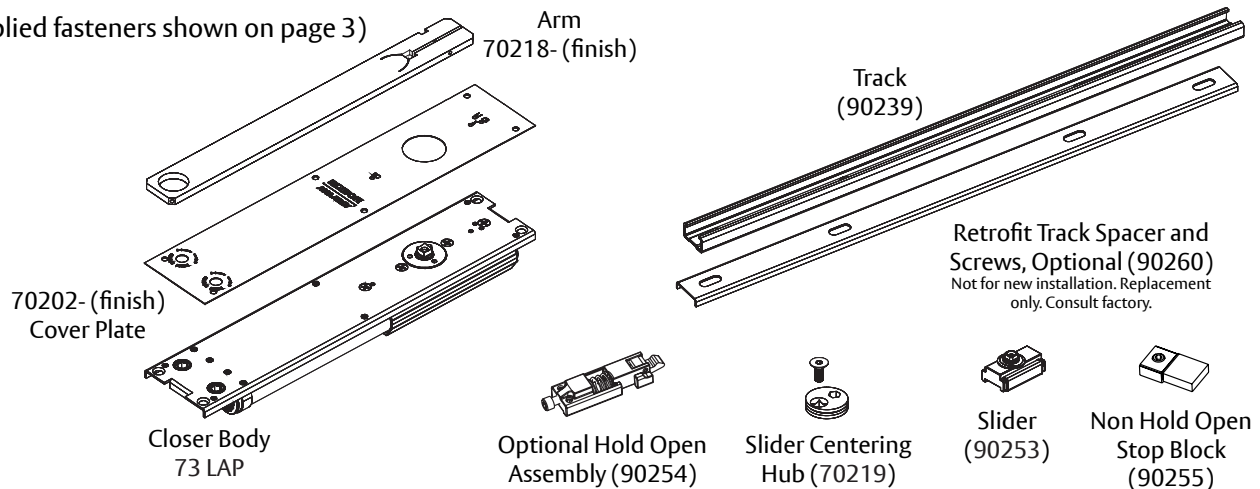
READ AND FOLLOW ALL INSTRUCTIONS. SAVE THESE INSTRUCTIONS.

Model 73ER, Emergency Release Hinge Hung

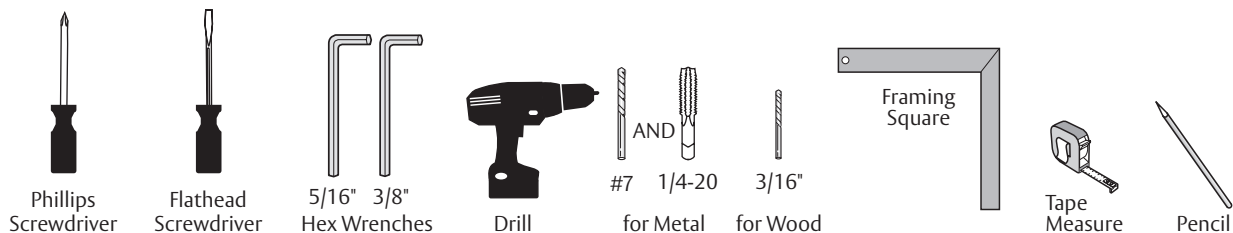


Components

(Supplied fasteners shown on page 3)



Tools Needed



Contents





| | |
|--|---|
| Important..... | 2 |
| Before You Begin | 2 |
| Mounting Hardware and Drill Table..... | 2 |
| Supplied Fasteners | 3 |
| Installation..... | 4 |
| Adjustments | 7 |
| Troubleshooting | 8 |
| Closer Template, Metal Frame | 9 |

IMPORTANT:

- An improperly installed or incorrectly adjusted door closer may cause **property damage** or **personal injury** and will void product warranty.
- To avoid personal injury, **DO NOT DISASSEMBLE THIS DOOR CLOSER BODY.**
- Door closers must be securely fastened to a prepared door and frame with fasteners provided.
- HOLD OPEN option not permitted to be installed in fire door assemblies.

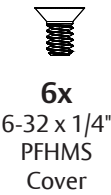
Before You Begin:

- All dimensions are given in inches (millimeters).
- A double swing continuous geared hinge, supplied by others, is required to hang door. Combining a separate emergency release stop, supplied by others, with this hinge is ideal. Refer to installation instructions with hinge and emergency release stop products to install.
- These instructions utilize Markar and Pemko Anti-Barricade Rescue Hardware, supplied separately, to illustrate an emergency release hinge installation. For other manufacturers' hinge and/or stop products, please consult Rixson Support for templating and installation modifications.
- Door and frame must be reinforced for attaching screws.

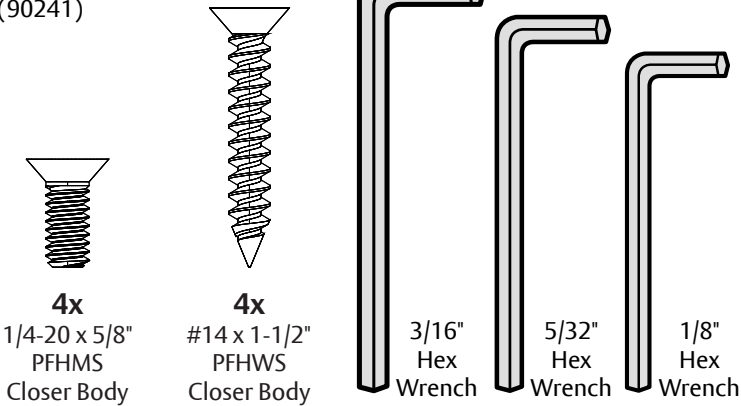
| Mounting Hardware | | Door / Frame | Drill |
|---|---------------------------------|------------------|--|
|  | Closer: #14 x 1-1/2" | Wood | 3/16" (4.76mm) |
|  | Closer: 1/4-20 x 5/8" | Metal | Drill #7 (.201 dia. or 5.10mm) Tap 1/4-20 |
|  | Track: #14 x 1-1/4" | Aluminum or Wood | 3/16" (4.76mm) |
|  | Track: 1/4-20 x 7/16" | Hollow Metal | Drill #7 (.201 dia. or 5.10mm) Tap 1/4-20 |

Supplied Fasteners

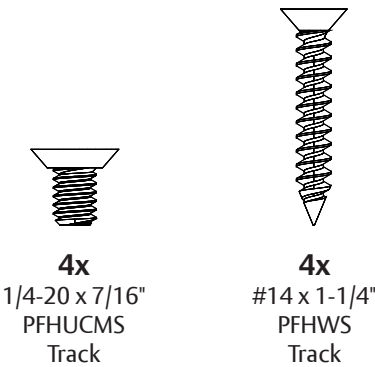
Cover Plate Screw Pack
(90278-finish)



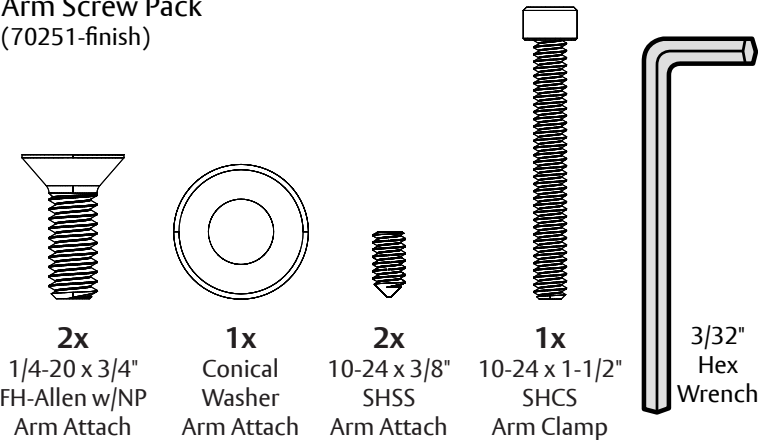
Closer Screw Pack
(90241)



Closer Track Screw Kit
(90242)



Arm Screw Pack
(70251-finish)



Installation

A. Prepare frame and door.

1. Using templates supplied with double swing hinge and emergency release stop products, prepare door and frame. (Figure 1)

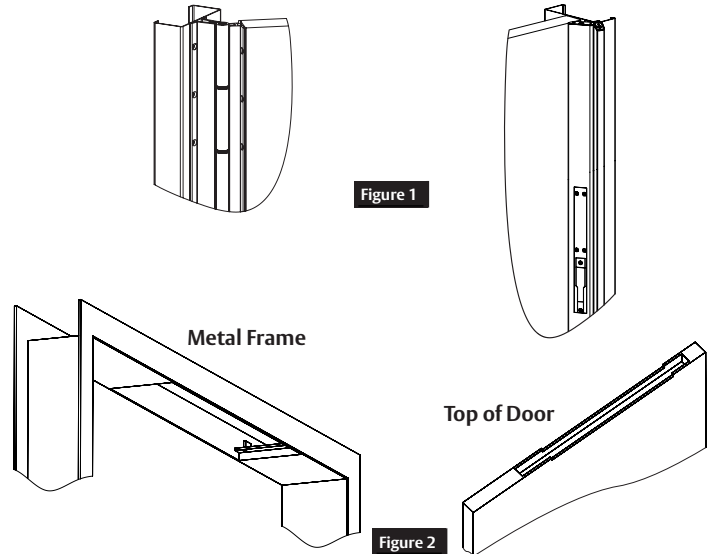
NOTE: These instructions illustrate the Markar DSH1000 hinge and the Pemko DSHP01 hinge with Pemko ERS or ERSMP stop. For comprehensive information about those products, please visit assaabloydooraccessories.us. For other manufacturers' hinge and/or stop products, please consult Rixson Support for templating and installation modifications.

2. Using template provided with these instructions, prepare frame header and door for closer. (Figure 2)
3. Confirm all cutout dimensions for closer.

NOTE: Closer is installed centered to closed door. Depending on application, it may not be centered in width of frame header.

Markar DSH1000
Double Swing Hinge

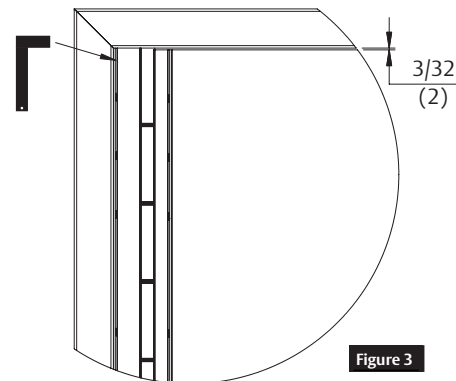
Pemko Emergency
Release Stop



B. Install hinge and emergency release stop.

1. Verify frame is square and plumb.
2. Using manufactures' installation instructions, mount hinge and frame stop supplied by others.
3. Mount door to leave 3/32" (2) gap between top of door and frame header. (Figure 3)

NOTE: Door should swing freely.



C. Assemble track.

1. Slide track components into track. (Figure 4)

NOTE:

- All track components must be placed in track before installing track into door.
- Insert slider into track first.
- Stop block (or optional hold open) should be last component at hinge side of door.
- The longer end of slider should be pointed towards hinge side of door.

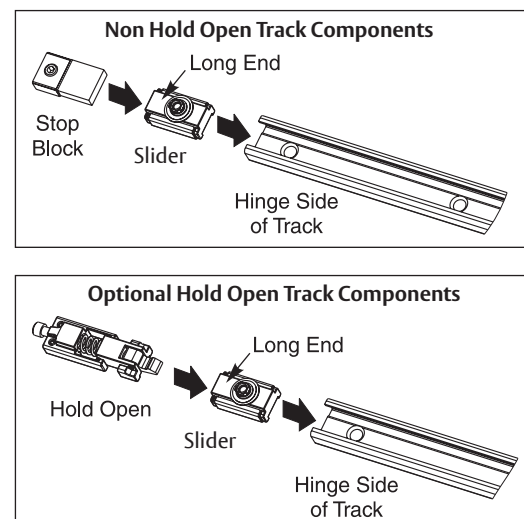
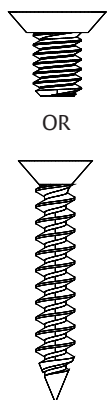


Figure 4

Installation



D. Install track to door.

1. Make sure slider and track components are installed prior to installing track to door. See Step C.
2. Install track into top of door using either four (4) 1/4-20 x 7/16" machine screws for metal doors or four (4) #14 x 1-1/4" wood screws for wood doors. (Figure 5).

NOTE: If necessary, use optional retrofit spacer (replacement application only, consult factory).

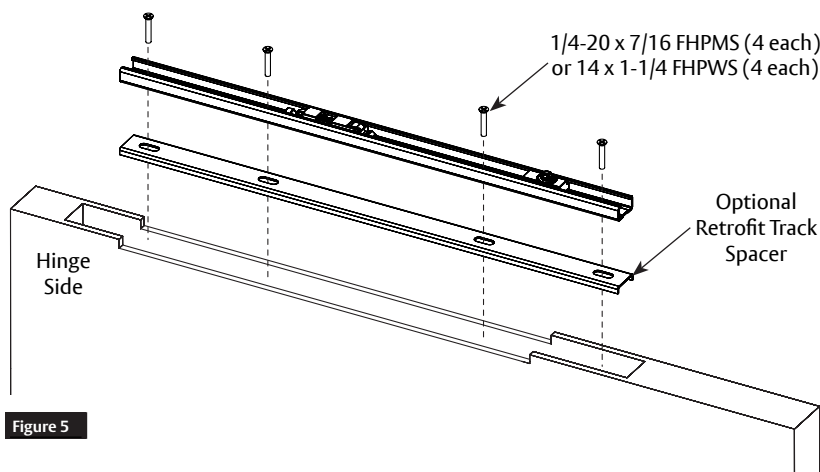
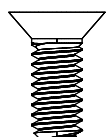


Figure 5



E. Install closer.

1. Install closer into frame with four (4) 1/4-20 x 5/8" machine screws. (Figure 6)

NOTE: Mounting plate should be flush with frame rabbet.

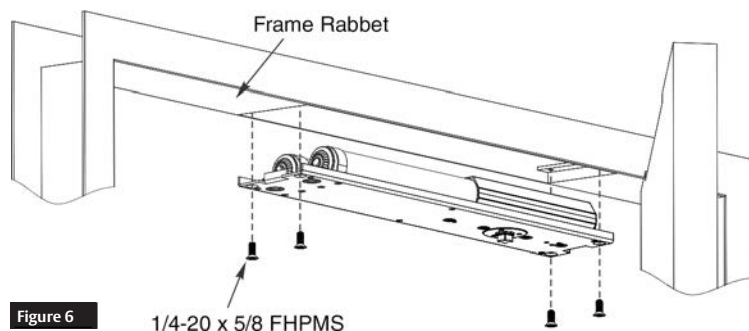


Figure 6



F. Install cover plate.

1. Install cover plate to closer body with six (6) 6-32 x 1/4" machine screws. (Figure 7)

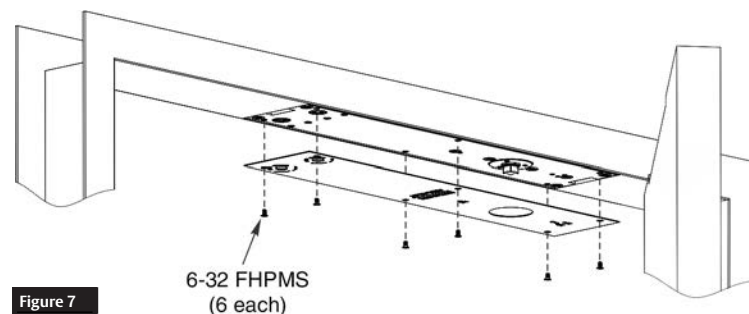
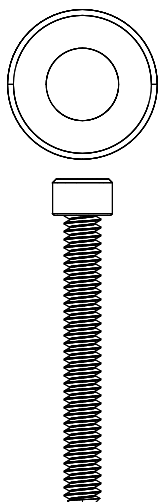


Figure 7



G. Attach arm to closer.

1. Attach arm to closer shaft with 1/4-20 x 3/4" FH-Allen w/Nylon Patch screw and washer. Tighten securely. (Figure 8)

NOTE: Ensure countersink recess side of arm faces down.

2. Insert 10-24 x 1-1/2" socket head cap screw into arm and clamp arm tightly to pinion square. (Figure 8)

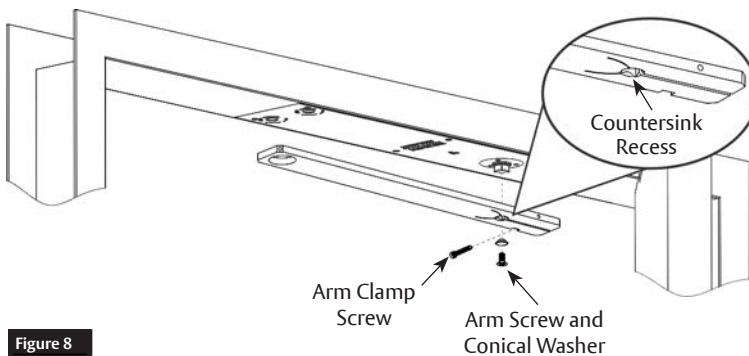


Figure 8

Installation

H. Attach arm to track.

1. With provided 1/8" hex wrench, completely tighten latch and sweep valves by turning clockwise. This will allow for an easier closer-to-door connection. (Figure 9)



CAUTION: Arm will be under strong spring force to return if valves are not tightened completely closed.

2. Open door to about 45° then rotate arm over to door.

NOTE:

- With latch and sweep valves tightened, arm will maintain position.
- If door is opened beyond 45°, backcheck may need to be adjusted counter clockwise to easily rotate arm to door position.

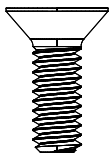
3. Install slider centering hub through arm into slider. (Figure 10)

NOTE: Countersink recess should face up.



4. Align hub initially as shown and insert two (2) 10-24 x 3/8" Adjustment Set screws. Turn both set screws just enough to retain slider centering hub. Do not tighten firmly at this time. (Figure 11)

NOTE: Align square shank of slider with square in centering hub for proper fitment.



5. Insert arm attach screw, 1/4-20 x 3/4" FH-Allen w/Nylon Patch, and tighten. (Figure 10)
6. Open latch and sweep valves to allow door to close and observe door and frame alignment. If door is not resting against emergency stop release device when closed, reopen door and use 5/16" hex wrench to rotate slider centering hub until door comes to rest against ERS device. (Figure 12)

NOTE:

DO NOT fully open valves. Valves will leak.

7. When door is completely aligned, tighten both adjustment set screws.

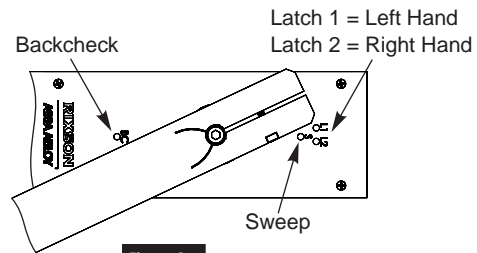


Figure 9

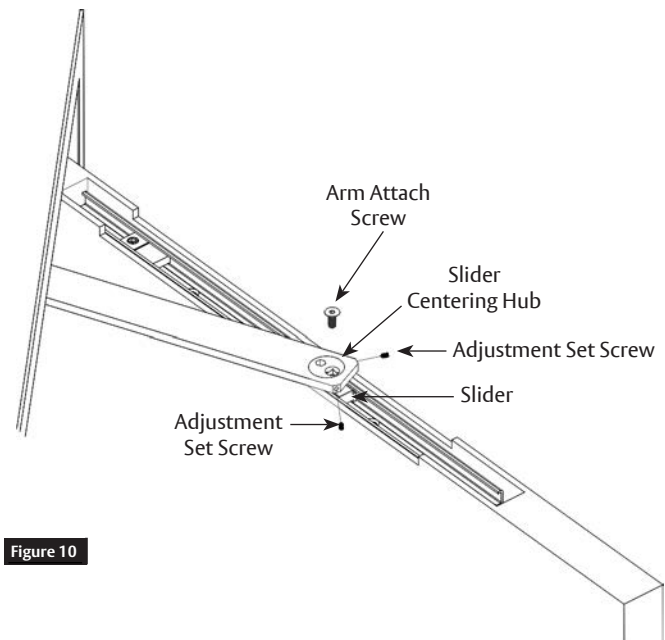


Figure 10

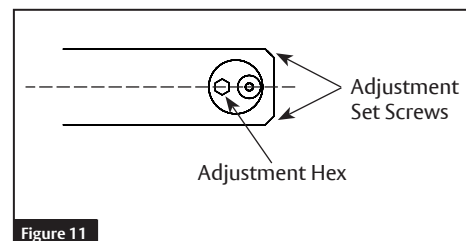


Figure 11

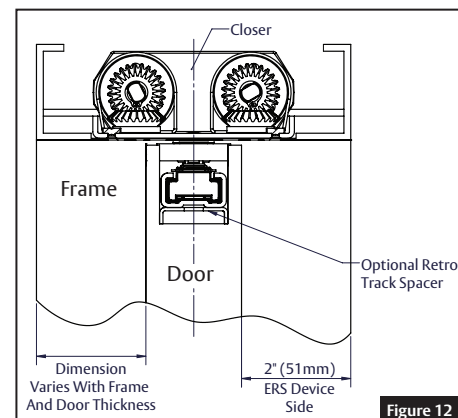


Figure 12

Adjustments

Speed Adjustment

Use provided 1/8" hex wrench to adjust sweep, latch and backcheck valves to control speed of door. (Figure 13)



NEVER completely close backcheck valve.
NEVER use backcheck as a dead stop.
NEVER fully open valves. Valves will leak.
Do not use a power drill.
Warranty will be void.

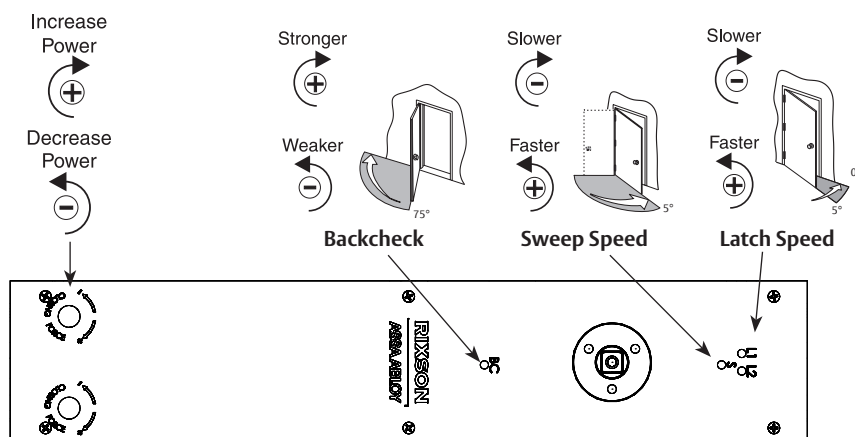


Figure 13

Closing Force Adjustment

If additional force is needed, use 3/8" hex wrench to adjust closing force. (Figure 14)

Use spring adjustment screw that corresponds with hand of swing. (Figure 13)



Do not use a power drill.
Warranty will be void.

| Spring Power Adjustment for Closing Force (Closer shipped at lowest setting) | | |
|---|-------------------------|------------------------|
| Model 73ER | | |
| Closer Size | Description | Approx # of 360° Turns |
| 1 | 2 - 3 lbs Closing Force | 0 |
| 2 | 3 - 5 lbs Closing Force | 15 |
| 3 | 5 - 8 lbs Closing Force | 35 |
| 4 | 8+ lbs Closing Force | 50 |

Figure 14

Optional Hold Open Adjustment

1. Insert locking tab of hold open assembly into track slider. (Figure 15)

NOTE: Hold open assembly should be on hinge side of track slider.

2. Open door to desired hold open position.
3. Tighten hold open set screws to lock down hold open assembly. (Figure 15)
4. Pull door in closing direction to disengage hold open assembly and track slider.
5. Adjust hold open by turning adjustment screw with provided 3/16" hex wrench. (Figure 15)



NOTE: THIS FEATURE CANNOT BE USED ON FIRE-RATED DOORS

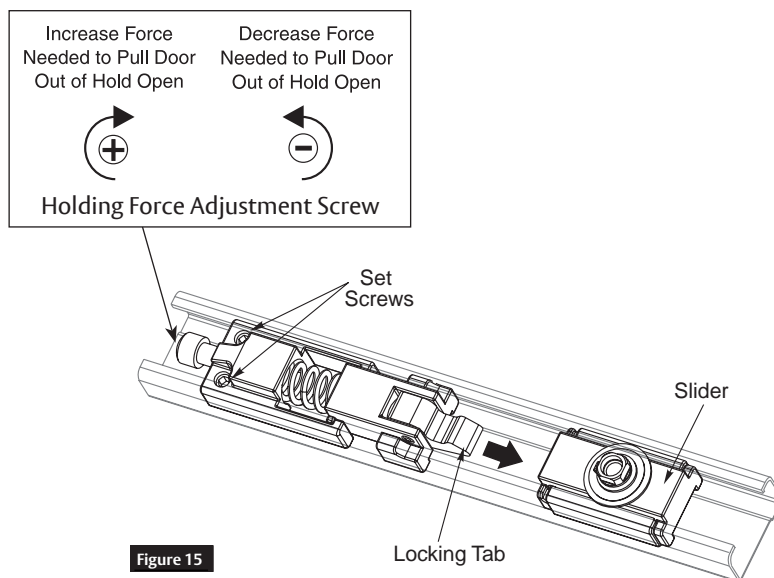


Figure 15

You've now installed the **Model 73ER Overhead Concealed Closer.**

The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.

Troubleshooting

| Symptom | Cause | Remedy |
|-------------------------------|---|--|
| Door won't latch | Spring tension not strong enough | Increase opening force. See Adjustments section. |
| | Latch speed control not fast enough | Adjust latch speed valve. See Adjustments section. |
| | Door hung on products other than emergency release hinges specified | Send template for hanging means to factory. A new installation sheet is required. Closer may need to be relocated. |
| | Arm is not preloaded | See Step H. Attach Arm to Track |
| Door is too difficult to open | Spring tension is set too strong | Decrease opening force. See Adjustments section. |

Rixson Technical Product Support:
Monroe, NC 28112 USA
Phone: 800.438.1951 ext: 6030
TechSupport.Rixson@assaabloy.com
rixson.com

Rixson is a brand associated with ASSA ABLOY Accessories and Door Controls Group, Inc., an ASSA ABLOY Group company.
Copyright © 2021, ASSA ABLOY Accessories and Door Controls Group, Inc. All rights reserved. Reproduction in whole or in part without the express written permission of ASSA ABLOY Accessories and Door Controls Group, Inc. is prohibited.

Approved 2021-10-20

Model 73ER Overhead Concealed Closer Template

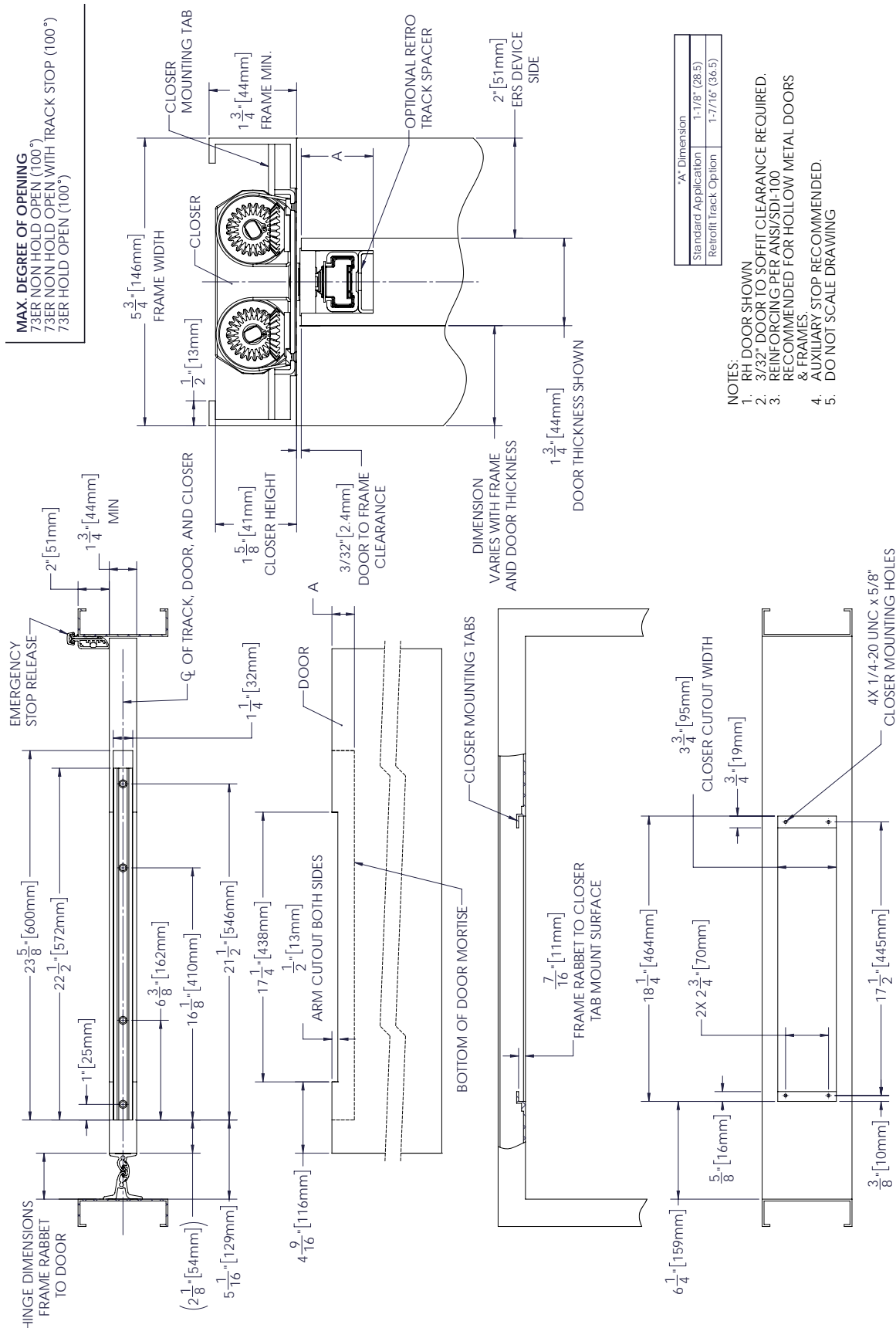
With Emergency Release Hinge

Metal Frame

Pemko DSHP01 or Markar DSH1000

RIXSON®

ASSA ABLOY



| "A" Dimension | | |
|-----------------------|----------------|--|
| Standard Application | 1-1/8" (28.5) | |
| Retrofit Track Option | 1-7/16" (36.5) | |

- NOTES:**
1. RH DOOR SHOWN
 2. 3/32" DOOR TO SOFFIT CLEARANCE REQUIRED.
 3. REINFORCING PER ANSI/SDJ-100 RECOMMENDED FOR HOLLOW METAL DOORS & FRAMES.
 4. AUXILIARY STOP RECOMMENDED.
 5. DO NOT SCALE DRAWING